

Amendment dated

After Final Office Action of April 6, 2006

**AMENDMENTS TO THE CLAIMS**

1. (Previously presented) An apparatus for testing image sensors, said apparatus comprising:
  - a digital light processing control system capable of generating digital test images and directing said images onto at least one image sensor;
  - focusing optics capable of splitting one of said digital test images into a plurality of images; and
  - an image sensor signal detector for detecting a signal from said at least one image sensor.
2. (Original) The apparatus of claim 1, wherein said test images are static images.
3. (Original) The apparatus of claim 1, wherein said test images are dynamic images.
4. (Original) The apparatus of claim 3, wherein said dynamic test images comprise one or more images selected from the group consisting of marching rows, marching diagonals, and alternating checkerboards.
5. (Previously presented) The apparatus of claim 1, wherein said digital light processing control system comprises a light source; a digital micromirror device, for converting light from said light source into a digital test image; collimating optics, for directing light from said light source onto said digital micromirror device.
6. (Original) The apparatus of claim 5, wherein said light source is a uniform DC light source.

7. (Original) The apparatus of claim 5, wherein said digital light processing control system further comprises filter optics, for filtering light from said light source before it is directed to said digital micromirror device.

8. (Previously presented) The apparatus of claim 1, wherein each of a plurality of said digital test images is split by said focusing optics.

9. (Previously presented) The apparatus of claim 8, wherein said plurality of images is a plurality of identical images.

10-15. (Canceled)

16. (Currently amended) The An apparatus of claim 13 for simultaneously testing a plurality of image sensors, said apparatus comprising:

a digital light processing control system comprising an image generator for generating static and dynamic digital test images and a test image director for simultaneously directing one of said static and dynamic images onto a plurality of image sensors; and

an image sensor signal detector for sensing respective signals from said image sensors.

wherein said digital light processing control system comprises:

a light source;

a digital micromirror device, for converting light from said light source into a digital test image;

collimating optics, for directing light from said light source onto said digital micromirror device; and

focusing optics, for focusing said digital test image onto image sensors, and

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wherein said focusing optics are capable of splitting each of said directed digital test images into a plurality of identical images.

17-20. (Canceled)

21. (Currently amended) The An apparatus of claim 20 for automated image sensor testing, said apparatus comprising:

a digital light processing control system comprising:

a light source;

a digital micromirror device, for converting light from said light source into at least one of a static and dynamic digital test image;

collimating optics, for directing light from said light source onto said digital micromirror device; and

focusing optics, for focusing a digital test image onto an image sensor device under test; and

an image sensor signal detector comprising:

an input means, for inputting a continuous signal from an image sensor device under test; and

a means for automatically comparing said signal from an image sensor device under test to said test images inputted by said digital light processing control system,

wherein said digital light processing control system is capable of testing a plurality of image sensors using a plurality of test images, and

wherein said focusing optics are capable of splitting said test image into a plurality of identical test images.

22. (Previously presented) A method of testing image sensors comprising:  
generating a digital test image;  
splitting said digital test image into a plurality of images;  
applying one of said plurality of images on to at least one image sensor;  
inputting a first signal from said image sensor; and  
correlating said digital test image to said first signal from said image sensor.

23. (Previously presented) The method of claim 22, wherein said digital test image is a static image.

24. (Previously presented) The method of claim 22, wherein said digital test image is a dynamic image.

25. (Currently amended) The method of ~~claim 23~~ claim 24, wherein said dynamic test image comprises one or more images selected from the group consisting of marching rows, marching diagonals, and alternating checkerboards.

26. (Original) The method of claim 22, wherein generating a digital test image is performed by a digital light processing control system.

27. (Original) The method of claim 26, wherein said digital light processing control system comprises a light source; a digital micromirror device, for converting light from said light source into a digital test image; collimating optics, for directing light from said light source onto said digital micromirror device; and focusing optics, for focusing said digital test image onto an image sensor.

28. (Original) The method of claim 27, wherein said digital light processing control system further comprises filter optics, for filtering light from said light source before it is directed to said digital micromirror device.

29. (Original) The method of claim 22, wherein inputting a first signal from said images sensors and correlating said digital test image to said first signal are performed by an image sensor signal detector.

30. (Original) The method of claim 22, wherein applying said test image to an image sensor further comprises applying said test image to a plurality of image sensors.

31. (Original) The method of claim 22, wherein generating a digital test image further comprises generating a plurality of digital test images.

32. (Original) The method of claim 27, wherein said focusing optics are capable of splitting said digital test images into a plurality of identical test images.

33. (Previously presented) A method of simultaneously testing a plurality of image sensors comprising:

generating a plurality of digital test images using a digital light processing control system;

applying an identical generated image onto each of a plurality of image sensors;  
inputting a plurality of signals from said image sensors; and  
correlating said input digital test images to said input signals from said image sensors.

34. (Original) The apparatus of claim 33, wherein said test images are static images.

35. (Original) The apparatus of claim 33, wherein said test images are dynamic images.

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36. (Original) The method of claim 33, wherein said digital light processing control system comprises a light source; a digital micromirror device, for converting light from said light source into a digital test image; collimating optics, for directing light from said light source onto said digital micromirror device; and focusing optics, for focusing said digital test image onto an image sensor.

37. (Original) The method of claim 36, wherein said digital light processing control system further comprises filter optics, for filtering light from said light source before it is directed to said digital micromirror device.

38. (Previously presented) The method of claim 36, wherein the act of applying an identical generated image comprises splitting at least one of said digital test images into a plurality of identical test images.

39. (Original) The method of claim 33, wherein inputting a first signal from said images sensors and correlating said digital test image to said first signal are performed by an image sensor signal detector.